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(54) Title: STERNAL CLOSURE SYSTEM, METHOD AND APPARATUS THEREFOR

(57) Abstract: The present invention relates generally to surgical devices, and more particularly to devices and methods for reapproximating the sternal halves or sides of a patient's severed or separated sternum following a partial or medial sternotomy. There is proposed a system of devices and apparatus for fast connection of sternum halves. The system comprises several pairs of anchor means, substantially screws, with external thread of one or different directions and an inner axial passage, as well as staples for rigid, tight connection of these anchor means. The anchor means and staples are made from materials allowed by FDI. Substantially metals and alloys of a group containing stainless steel, titanium, tantalum and alloys of titanium, tantalum, or from biodegradable material. There are proposed apparatus for simultaneous pairwise placing of anchor means and apparatus for placing or removing staples. There is further proposed a method for applying the devices and apparatus of this system in performing surgical procedures within thoracic cavity.

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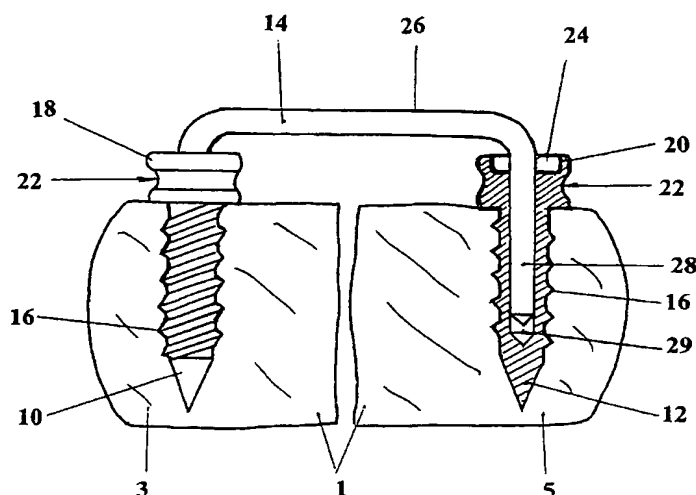
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(57) Abstract: The present invention relates generally to surgical devices, and more particularly to devices and methods for reapproximating the sternal halves (3,5) or sides of a patient's severed or separated sternum following a partial or medial sternotomy. There is proposed a system of devices and apparatus for fast connection of sternum halves. The system comprises several pairs of anchor means (10,12), substantially screws, with external thread of one or different directions and an inner axial passage, as well as staples (14) for rigid, tight connection of these anchor means (10,12). The anchor means (10,12) and staples (14) are made from materials allowed by FDI, substantially metals and alloys of a group containing stainless steel, titanium, tantalum and alloys of titanium, tantalum, or from biodegradable material. There are proposed apparatus (54,120,150) for simultaneous pairwise placing of anchor means and apparatus for placing or removing staples. There is further proposed a method for applying the devices and apparatus of this system in performing surgical procedures within thoracic cavity.

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